1: Karsten--114 (1916-18) 1935 Jivaro
116, 511, 262 (1928-29)

"Scarcity of food is an almost unknown thing to the Indians of Western Amazonas. As to the Jibaros and the Canelos Indians, the extraordinary fertility of the soil, the richness of the forests in all sorts of game, and the industry of the Indians, enable them to live easily and fairly well as far as food is concerned. On this point they are much better off than for instance the Chaco Indians, who in certain months of the year approach the very verge of starvation. The Indians of the Amazon territory appreciate vegetable and animal food equally. Their agriculture is well developed, although their methods of cultivating the soil are simple, and meat is secured to them by their domestic animals, the swine and the hens, as well as by the game they catch by hunting. Fish is also an important food. Their vegetable and animal food will shortly be treated separately, and I shall then give a more detailed account of their agriculture and their hunting and fishing practises."

1: Karsten--115[2] (1916-18) 1935 Jivaro
116, 262, 241 (1928-29)

"A considerable number of edible plants are cultivated by the Jibaros, and vegetable food is as a matter of fact never lacking in a Jibaro house. The most important of these plants are the manioc and the plantain or banana, but in addition they raise crops of sweet potatoes and another kind of potato which is a vine and called kingi, maize, a kind of carrot, earth-nuts, beans, and some other edible plants of minor importance."

"Pigs and fowls were early introduced among the Jibaros by the Spaniards, at any rate among the tribes of the Santiago and the Upano, where they are still commonly kept as domestic animals. That these animals have long been known to the Jibaros, may be inferred from the important part that the ceremonial slaughter of the swine plays at the great feasts, in which old customs are conservatively kept up. All Jibaro tribes, however, do not seem to possess swine. At any rate the [117] Achuares, at the time when I visited them, had not these domestic animals, nor did I see any among the Aguarunas of Peru.

Although the flesh of swine and hens is an animal food much appreciated, there are still many occasions when the Indians, according to the strict rules prevailing as regards food, has to abstain from eating this kind of meat. The flesh of the swine is, on these occasions, particularly regarded as dangerous, a fact easily explained from the harmful effects that the eating of pork may have upon the stomach and the liver in a tropical climate.

In addition to the swine and the fowls the Jibaros, being clever hunters, highly appreciate different kinds of game. The most important of the animals whose flesh is eaten are the wild hog and the smaller peccary, different kinds of monkeys, the agouti (Dasyprocta aguti) the paca (Coelogenys paca), as well as a great variety of birds. The most important of the latter are the paugi (Crax paugi), different kinds of wild turkey

(Penelope etc.), and a kind of partridge, the trumpeter bird (Psophia crepitans), the tucan, and different kinds of parrot, among which the great macaw (Arara) is the most appreciated. As a general rule all small birds of the forest are eaten, being shot with blowguns and unpoisoned arrows.

On the other hand, it must be remarked that there are certain animals, even such as from a European point of view are nice eating, which are religiously shunned by the Jibaros, or can only be eaten by certain people. It is a curious fact for instance that the innocent deer, the flesh of which is commonly eaten by the whites, is never eaten by the Jibaros, who for superstitious reasons generally avoid even touching its flesh. About the same holds true of the tapir, although the fear of this animal is not equally great. If the Jibaros in the neighbourhood of Macas shoot a deer or a tapir, it is chiefly to barter with its flesh at Macas. The skin of the animals, however, may be used. The reasons why the Jibaros shun the deer and the tapir will be mentioned in the chapters treating of their religion.

As is the case with the swine and the fowls, there are many animals and birds of the wood which are in some cases eaten, in other cases again--that is, when the Indians for one reason or another have to observe ceremonial abstinence--are forbidden as food. Such animals and birds are for instance the boar, the paca, the agouti, and among birds the macaw, the tucan, the mango, the wood-pecker, the parrot, the pigeon, the

umbrella-bird, etc. [118]

Quite peculiar in this respect is the position of the armadillo. It is eaten by ordinary people, but shunned by the medicine-men to such an extent that they even avoid looking at the animal.

Again, among fishes the most common and largest are valued, chiefly such as the sheat-fish, the dourado or golden fish, tha paco or bocachupa (its name in Spanish) as well as the smaller bocachico, the most common fish in the South American rivers. In addition to these there are a variety of small sardine-like fish caught with varvasco poison, which are also appreciated. In regard to these different kinds of fish similar rules prevail as in regard to animal food: in some cases, or to certain persons, they are forbidden as food, in other cases again a person may even be recommended to eat a special kind of fish, as we shall see later on.

Besides this, the following kinds of food, some of which are from a European point of view rather peculiar, may be mentioned.

Of small alligators the Indians eat the tail which, when boiled in water, has a taste somewhat reminiscent of fish. Tortoises are greatly valued as food and similarly their eggs are eaten. The iguana lizard is regarded as a delicacy.

Of frogs there are two kinds of which the one, which is spotted, is said to be poisonous and therefore not eaten. The other again, called poáchi, is regarded as edible.

The same may be said of a crab living in sweet water called uriki, and of the snails, both the one living in water, called tsuńtsu, and the one living in the forest, called kungu. The latter is also valued because of its shell which the Jibaro women use for their important rattle cincture, the kungu. The Jibaros moreover eat fish roes, frog's roes, a fat larva living in the top of certain palms called mukindi, and a flying ant called uku.

As a general rule it may be stated that the Indians shun all animal beings as food the flesh of which is directly harmful or of which they have superstitious ideas of some kind. For this reason for instance venomous reptiles and other kinds of snakes, beasts and birds of prey, vultures, and most nocturnal birds are regarded as unfit for food. I shall have an opportunity to return to this question later on.

I have in the first place spoken of the Jibaros proper, but I have to add that much the same rules as regards food prevail among the CANELOS INDIANS. It may be remarked however, that the latter Indians, nowadays more civilized than their savage tribesmen, have no hesitation in eating the deer and the tapir, which they eagerly hunt. But [119] they are aware themselves that formerly they had the same aversion to these 'demoniacal' animals as the Jibaros."

l: Karsten--228-229 (1916-18) 1935 Jivaro-l
116, 846, 262 (1928-29)

"The other Jibaro tribes of Eastern Ecuador and Peru, although they do not practise the couvade in the sense that the father must lie in bed after the birth of his child, still deem it absolutely necessary that both parents should observe certain rules in regard to their diet and their mode of life. In regard to the diet, the rules are the following: --as to birds, the father and mother of the child must abstain from eating the tucan (tsukánga), the mango (chui), the wood-pecker (tatáshama), the umbrella-bird (umgúmi), the cock-of-the-rock (sumga), the wild turkey (kuyu, áwacha), and the pigeon (yámbitsa); nor must they eat the intestines of any animal, hen's eggs, or fish roes; as to fish, two common fishes are especially mentioned as prohibited food, namely, the large wambi and the sheat-fish (napi or tungá).

The dietary prescriptions just mentioned are due to the following ideas. The tucan, the mango, the wood-pecker, the umbrella-bird, and the cock-of-the-rock belong to those birds which, although they are normally eaten, are yet regarded with superstition, because it is believed that they may serve as abodes or vehicles for the magical arrow (túnchi) which the sorcerers let fly against persons whom they want to harm. By the parents eating these birds, therefore, the child may be bewitched, pine away, and die. The Jibaros use for this the expression tapiktinyu. Again, the wild turkey and the pigeon produce very loose feces and constantly excrete as if they were suffering from diarrhoea. If the parents eat these birds, therefore, their offspring will likewise have

diarrhoea--an illness to which small children are particularly exposed--and perhaps die. Similarly the child would be likely to contract diarrhoea if the parents ate the intestines of animals, or hen's eggs. As to the latter the Jibaros have the same superstition as the Canelos Indians: the feces of the child would become the same colour as the yellow of the egg, which would be the sign of some disease of the stomach. Again, if they eat fish roes, the child will get scrofula (káncha) of the head, a disease fairly common with Indian children.

The reason why the parents [JKM: after the birth of a child] must not eat the fish wámbi is connected with the mythological ideas of the Jibaros. In ancient times, when all animals had human shape, the wámbi was attacked and wounded by some of his enemies while trying to escape from the lagoon where he lived. He was badly hit by a lance, but contrived to draw it out from his body and escaped. However, he lost much blood and, owing to the wound received, has still a red tail and red fins, though the rest of him is quite white. Now if the parents eat the fish wámbi, their delicate [229] child will likewise lose blood, become anaemic, and die. Again, that they abstain from eating the sheat-fish, tungá, is due to the same considerations as make the Jibaro avoid that food after he has sown his maize fields. Since this large fish is extremely restless and violent, the consequence would be, if the parents ate it, that their babe would be 'tired out' and not get the rest necessary for a newborn child.

The sort of food just mentioned is particularly regarded as dangerous, but in their general diet the parents are extremely careful during the whole time that the child is suckled. Meat, for instance, of whatever kind it may be, they generally refuse to eat, and particularly food prepared in a strange house is always looked upon with suspicion. Frequently, when I travelled in company with Jibaro Indians, I noticed their reluctance to eat certain kinds of animal or bird, certain kinds of fruit, etc., and when I inquired about the reasons for this I often received the answer, 'I cannot eat it, for I have a sucking babe at home.'"

1: Karsten--229 [2]
116, 846, 784, 262

(1916-18) 1935
(1928-29)

Jivaro

"The latter precautions [JKM: no hunting or working] are observed for a shorter period, but those relating to fasting must be observed by the father not only for a few days, as among most other Indians, but for two, sometimes three years, or more strictly speaking, during the time that the child is suckled."

1: Karsten--231-232 (1916-18) 1935 Jivaro-1
116, 846, 262 (1928-29)

"During the following eight days, or until the navel of the child is perfectly healed, the parents [JKM: of a newborn child] have to diet, and the father is obliged to observe certain other rules of abstinence. Thus they abstain from eating the tucan (sicuanga), normally so much appreciated by the Indians, because this bird may sometimes serve as the abode of a demon or as the seat of the chonta thorn (chúnta), which the sorcerers use to bewitch people with; therefore, if the parents eat the tucan, this may have the effect that the newborn child will be bewitched, pine away, and die. For the same reason they do not eat the mango, another beautiful bird of the forest used for food. They also abstain from eating the wild turkey, as well as a special kind of duck emitting a disagreeable odour, because otherwise the babe will have diarrhoea and die. Of quadrupeds they do not eat the tapir or the lumucha (Coelogenys paca), animals that are also regarded with superstition by the Indians, although they are generally eaten. Of other things forbidden to them hen's eggs are especially mentioned. If they eat eggs, the feces of the child will become the same colour as the yellow of the egg, that is, the child will have diarrhoea and die. Similarly, the parents must not drink the brandy of the whites, for this strong drink would do harm to their delicate offspring. As to the native manioc-beer (asua), they can drink it, but it must not be too strong. After the woman has been delivered, warm asua is given her.

As to fish, the parents are allowed to eat the bocachico (challua) as well as certain

sardine-like fish (called umbúni, chúti, túgshi, and shigli in the Quichua language). Small birds of the forest of the kind the Jibaros are in the habit of shooting with blowgun and unpoisoned arrows are also regarded as harmless food. A worm or larva living in the top of certain palms, called túku, the parents are even recommended to eat. The larva [232] is very fat, and therefore the parents' eating it will have the effect of making the child fat."

1: Karsten--234 [2]
116, 262, 784, 852

(1916-18) 1935
(1928-29)

Jivaro

"The first period in the education of the child, ... is that between birth and the 'feast of the children', which is held when the little one is two or three years old. Until that feast has taken place both parents have to submit themselves to the most rigorous diet according to the rules mentioned in the last chapter. Dieting, it should be understood, forms part of the actual preparations for the feast. The rest of the preparations are similar to those for other feasts: as usual, new plantations have to be made, and domestic animals, swine and hens, have to be bred before the feast can be held, which of course takes a long time. The child itself has to diet; above all it is not allowed to eat pork and hen's flesh, nor can it eat ripe plantain or chew sugar cane as Indian children usually do."

1: Karsten- -265-266 (1916-18) 1935 Jivaro-1
116, 411, 262 (1928-29)

"The shield (tandára) is made of the enormously big air roots of the giant tree which is called kámaka by the Jibaros and llanchámа by the Indians of Canelos (Bombax ceiva), a kind of wood which has the advantage of being at once light and strong. It is always round in form and wrought of one single piece, although the shields are sometimes very large, 80 to 90 centímetres in diameter. Just as is the case at the making of other important objects, the Indian has to observe certain rules of abstinence while he is making the shield, work which of course requires a long time. During the days that he makes the rough work he partly fasts, especially abstaining from eating batatas or sweet potatoes (Convolvulus batatas), called inchi by the Jibaros. If he eats this fruit, the shield will mould, rot, and become useless. This superstition is due to the fact that the sweet potato has the same appearance as mouldy or rotten wood. During the same days the maker likewise abstains from cohabiting with his wives, for if he has intercourse with a woman the shield will get warped or burst, and consequently spoiled.

The CANELOS INDIANS, at the making of the shield, formerly observed the following rules. The rough work was carried out in four days. The Indian worked every day from early morning until noon. During the whole forenoon, until the work was finished for that day, he fasted and did not eat or drink anything. As soon as the work was finished at noon [266] he had chincha (manioc beer), and in the afternoon he could also eat other kinds of food. While working upon the shield he observed the rule not to speak

to anybody, but kept strict silence. Nor did he, during the four days and nights, cohabit with his wife. If he infringed these rules the shield would get lumpy or burst, or be attacked by mould.

As soon as the shield is made it is often painted on the outside with the black dye obtained from the genipa fruit, called sua by the Jibaros. The patterns represent spirits (wakáni, supai), giant snakes (pangi, amárun), butterflies (wambishku), and other animals. These patterns are supposed to inspire the enemy with fear and to give strength and courage to the warrior himself. Nowadays such ornamented shields are no longer made and seldom encountered in Indian houses. A unique shield of this kind which I obtained from the Jibaros is now in the ethnographic museum of Gothenburg.

The Jibaros use shields of two kinds. Some are very large and somewhat heavy and are used only for defence within the house. The shield rests against the ground or against a round seat of the kind the Jibaros use, and the warrior with his lance tries to defend himself against the enemy penetrating into the house. Other kinds of shields are smaller and lighter and are carried by the Indians on war expeditions.

The shield of the Jibaro Indians is not only a weapon of defence, but also a religious instrument, a fact that everybody who takes part in their victory-feasts is able to establish. The tandára is full of magic power, and when is [sic] is beaten with the lance in a particular way, this is in fact a sort of religious or magical ceremony which is

believed to inspire the spirits--first of all the spirit of the slain enemy--with fear. The ceremony referred to is called Yáktinyu."

1: Karsten--306-307 (1916-18) 1935 Jivaro
262 (1928-29)

"Again, if one asks what ideas underlie the choice of the slayer's food [JKM: at the victory feast after the warfare] --palm top, beans, mashed manioc, etc.--the Indians only give the explanation that he ought to eat such light kinds of food that remain in [307] his stomach and which he does not run the risk of throwing up, which evidently would be regarded as dangerous for him. Their idea is, no doubt, that a very indigestible or irritating food could become a means through which the invisible, supernatural enemy of the slayer--the spirit of the killed enemy--could get an opportunity to harm him, perhaps cause his death. That the guests mainly eat chicken at the feast is probably only due to the fact that Numbuimártinyu is an improvised feast, and that, therefore, such kinds of food is given them as is most easy to procure."

1: Karsten--311-312 (1916-18) 1935 Jivaro-1
116, 727, 784, 262 (1928-29)

"The object of the feast Suamártinyu is partly to give the slayer renewed protection against the spirit of the killed enemy, partly to favourably prepare the trophy for what is its proper aim, namely, to promote the material wealth of the slayer, especially for the period immediately following the feast Numbuimártinyu. In the first respect the feast is of significance for him in so far that he need no longer observe the same anxious caution and strict abstinence in his mode of life that was necessary before. Thus he may again dress completely, tie his hair in pigtails, wear face-painting and ornaments, use lances and other weapons, go hunting and fishing, take part in feasts, sleep with his wife, etc. In one word, he can in the main return to his former normal life, with the exception that he is obliged to continue dieting. Even in this respect he has, however, far more liberty than before. With regard to food he has to observe the following rules. The slayer must absolutely abstain from eating pork and fowl. He is allowed to eat all fruits cultivated by the Jibaros, the manioc, however, only boiled, but not roasted. He must [312] not eat the flesh of the tapir (pamá), of the great wild hog (unta pakki), of the paca (Coelogenys paca, called kashai by the Jibaros), or of any kind of monkey. Of birds he must not eat the tucan, the wild turkey, the paugi, or other larger birds commonly hunted by the Jibaros, but only such small forest birds as are shot with the blow-gun and non-poisoned arrows. On the other hand, he is recommended to eat the small peccary (yankipi) and the rodent guatusa or agouti (Dasyprocta agouti). Of fish he is

recommended to eat the large sheat-fish tungá, and the wámbi (Spanish, bocachupa), but is forbidden to eat the kánga (Spanish, bocachico), the commonest fish in the South American rivers. He may also eat small fish (chumakai). If he infringes these rules he runs the risk of falling ill and dying, and the object of the whole feast will be missed."

1: Karsten--312-313 (1916-18) 1935 Jivaro-1
116, 727, 262 (1928-29)

"The dietetic prescriptions just mentioned depend on the following ideas. The slayer must, as a general rule, avoid eating the flesh of any animal through which the spirit of the slain enemy may get an opportunity to harm him. The most important mission of the tsantsa [JKM: head-trophy] after the feast Suamártinyu is to promote the increase of the principal domestic animals, the swine and the chicken (kuchi, atáshi pamboártinyu), and more particularly for the final great feast. For the very reason that the power of the tsantsa is in a mysterious way effective in the domestic animals mentioned, it is considered dangerous for the slayer to eat swine's flesh and fowls during this critical period, for that power may then prove destructive to him. The prohibition especially refers to swine's flesh. If the slayer eats of it, he may fall ill and die, and that is the work of the wakáni. This superstition is seemingly supported by the fact that flesh, and especially the fat of the swine, in tropical regions easily causes affections of the liver and other disturbances of the digestive processes. With the Indians such diseases often end fatally. The danger of a diet careless in this respect must of course be greater for a man who, for many months, has observed that strict abstinence with regard to food which has been described above.

The tapir is an animal which the Jibaros in general look upon with superstition and the flesh of which they therefore rarely eat. Formerly they had almost the same aversion from this animal as they still have from the deer, of which they believe that it is an incarnation of a demon (iguánchi), a belief still held of the tapir also by the

Jibaros of the Pastaza. The flesh of the wild hog is taboo to the slayer on account of the great similarity of that animal to the domestic swine, the flesh of which is strictly forbidden to him. The paca (kashai), although nor-[313]mally eaten by the Jibaros, is looked upon as a demoniacal animal, its flesh being therefore forbidden to persons who for one reason or another are obliged to diet.

That monkeys' flesh is forbidden to the slayer is due to the great likeness of these animals to man. The spirit of the dead enemy may hide in such an animal and cause the death of the slayer if he tries to shoot it in the forest or eat of its flesh.

Similarly the soul of the enemy may temporarily take up its abode in a tucan, a paugi, or some other large bird of the forest, and in this shape threaten the life of the slayer. Their flesh is therefore equally taboo to him.

The rule that the slayer can eat the manioc only boiled but not roasted is due to the fact that at the great feast the Jibaros prepare, from roasted manioc, a sort of manioc-wine (shiki), a magical drink which is ceremonially drunk on the last day of the feast. Since the consuming of this drink forms an important part of the conjurations at the feast, it is considered fraught with danger for the slayer to prematurely come into contact even with the roasted manioc from which it is made."

1: Karsten--313 (1916-18) 1935 Jivaro
116, 262, 825, 727 (1928-29)

"....the rules in regard to the diet of the Jibaro warrior are founded on the idea that by eating the flesh of certain other animals he will acquire qualities characteristic of these animals, which make it easier for him to escape his invisible supernatural enemy as well as his living relatives. From this point of view we have to explain, for instance, the recommendation for the slayer to eat the flesh of the agouti. This small rodent is very shy and runs fast, being rather difficult to catch. By eating the animal the slayer will acquire the same quality, at the time very useful to him. Similarly the fish wámbi is known as very shy and quick, great skill being required for catching it. The large sheat-fish also cunningly hides in the depths of the great rivers and lagoons, thus easily escaping his pursuers. Even this fish, therefore, possesses qualities which are useful for the Jibaro warrior who is trying to evade his enemies."

1: Karsten--313-314 (1916-18) 1935 Jivaro
116, 262, 773, 727 (1928-29)

"The prohibition for the slayer to eat the fish kánga is explained from the mythological ideas of the Jibaros. According to these, as already mentioned, all animal beings, even the fishes, have once been men--that is, Jibaros. Even in primitive times they used to wage war on and kill each other, to make trophies of each other's heads and to celebrate victory feasts. The fish kánga, then, in a fight was killed by one of his enemies, who later on was changed into a bird, the umbrella bird, [313] called ungúmi by the Jibaros. The ungúmi also made a trophy of the head of the fish kánga. Therefore the mouth of the kánga has still great similarity to the reduced mouth of a human tsantsa, and this is the reason why the Jibaro warrior, during the time he has to fast, abstains from eating that fish."

1: Karsten--505-506 (1916-18) 1935 Jivaro-1
116, 153, 262 (1928-29)

"With more reason we can speak of Indian Science when we enter the domain of their knowledge concerning animals and plants. This is a department of nature where that wonderful power of observation best shows itself which everywhere is one of the chief mental characteristics of man in his natural state. Life has here been the master of the Indians; it is the struggle for existence that has compelled them to acquire a thorough knowledge of the habits and qualities of different animal beings and the properties of plants. The whole of nature has been carefully scrutinized by them for the purpose of finding out what it can offer man in the way of food. They have tried everything, and they can unfailingly tell you whether for instance a certain animal or bird can be eaten, and how it affects the health. Nor is there any animal being so insignificant that it has not a native name; any boy can tell you the name of that or that small insect crawling on the ground. Their ideas as to which animals are edible and which not are, [sic] however, in some cases peculiar; in this respect they have sometimes been led astray by their superstitions. Thus when deer's flesh is never eaten because the deer is regarded as an evil demon, it is difficult to find any real foundation for this aversion. In most cases, however, the superstitions of the Indians have an underlying stratum of reality. 'Superstitious' ideas are as a rule entertained of such animal beings as are in some way harmful. Thus when the flesh of the tapir is taboo as food in the same way

as [506] that of the deer, this bias is not wholly without foundation, considering that the eating of the flesh of the tapir may in some cases have harmful effects. Even the whites in Eastern Ecuador assert that uncautious eating of it may cause a sort of fever. The same hold true of the flesh of many other animals and of certain fish. That for instance the fat flesh of the domestic swine and of certain other animals may cause indigestion and other kinds of sickness, is a well-known fact which has by no means escaped the Indians. We can thus easily understand why swine's flesh is regularly taboo as food when the Indian man or woman is, or is believed to be, in some critical condition. Taking native customs as a whole into account, I should say that what we call 'superstition' has to a great extent been the teacher of the Indians and, being founded on actual experience, given them valuable guidance in their practical life, although on the other hand the exaggerations to which it has led are obvious. The same will appear to hold true of their medicines."

2: Stirling--103 [3] (1930-1931) 1938 Jivaro
116, 226, 262

"In the higher mountain regions where the streams are small and torrential very few fish occur. In most of these streams the only food fish is the naiumbi, a curious looking fish whose body is surrounded by a hard shell and which attached itself on the under surface of rocks by means of a sucking appliance similar to that of the pilot fish. These ugly and bony creatures, while not very delectable in appearance, are sometimes the only available food supply in the gameless regions of the higher mountains. The Indians capture them by simply wading out into the stream and overturning rocks to which they are attached, removing them with their fingers. In the lower regions and along streams which are less turbulent fish life is very abundant and the Indians have devised many different ways of capturing them. Fishhooks are seldom used excepting where the Indians have been able to obtain them from the whites. The Jivaros apparently do not make or use fish nets at the present time.(26)"

"26. Up de Graff describes the use of nets among the Antipas, saying: 'Their nets are made of palm fiber, and in place of corks and leads they use balsa wood and stones. The net is fixed across a rivulet, and the party makes its way by a detour to a point upstream. There they throw stones into the water and frighten the fish into a hurried flight to where the trap awaits them. The meshes of the nets are so proportioned as to catch the fish by the gills as they rush downstream.' Up de Graff, p. 210."

2: Stirling--105 (1930-1931) 1938 Jivaro
116, 136, 262

"Bird life is remarkably abundant and varied. The principal food birds are the greater and lesser pawil and toucans of several species. The Indian does not scorn for food purposes the various members of the parrot family, or in fact almost any bird which he might be able to kill.

Various insects are also utilized for food purposes. A certain variety of giant red ant is a favorite delicacy, these as a rule being eaten in a parched form. In addition to this, large white grubs are secured in quantities from rotten wood and are considered to be a particularly choice morsel of food. Frogs, lizards, and snails are likewise frequently eaten.

It is seldom necessary for the Jivaro to go hungry. With his skill in woodcraft and his knowledge of the wild plant and animal life of the jungles in which he lives, he is able as a rule to find food at all times on comparatively short notice."

2: Stirling--107 (1930-1931) 1938 Jivaro
116, 262, 224

"Certain of the available animals are not utilized by the Jivaro for food purposes on account of magical taboos. Notable among these exceptions are the deer and tapir. Deer are considered to contain tsarutama of the feared spirit, Iguanchi. The Indians have no hesitancy in killing deer and furnishing them to white people to use as food, but no Jivaro will partake of deer meat himself. In the same way, in some regions, the flesh of the tapir is taboo."

2: Stirling--107 [2] (1930-1931) 1938 Jivaro
116, 241, 262, 462

"Although the Jivaros receive a considerable part of their subsistence from the products of the chase and from fishing operations, they might safely be termed a truly agricultural people. Maintenance of the gardens is almost solely the duty of the women. The only portion of the labor of preparing and maintaining a garden clearing which is done by the men consists in the felling of trees in making the original clearing. The planting, care, and harvesting of the crops is all women's work.

Sweet manioc, taken in the form of nijimanche, constitutes the most important single food item. The boiled fruit of the chonta palm is likewise used to form a drink prepared in the same manner as nijimanche. To a lesser degree, maize, sweetpotatoes, sugar cane, squash, and peanuts are raised. As a general rule, a good-sized garden clearing surrounds the jivaría itself, but frequently additional fields are maintained which are a mile or more distant. Bananas, plantains, and papayas are grown extensively, but require no care other than planting."

2: Stirling--120 (1930-1931) 1938 Jivaro
116, 756, 262

"It is interesting to note that when a wishinu has sent a disease spirit into a man he does not have the power to cure this individual, although a cure might be effected by another wishinu.

After the first month of training, during which the new wishinu has learned control of the spirits, he undergoes a strict diet for another month and thereafter a number of foods are taboo to him. He cannot eat deer, armadillo, peccary, wild pigs, tapir, cholo monkey, manatee, peanuts, chonta fruit, and many other animals, birds, fish and vegetables. The reason for this taboo is that all of these possess tsarutama. Should he eat any of these foods their tsarutama would enter him and neutralize or confuse the particular class of tsarutama that he might be attempting to isolate for his particular purpose."

3: Simson--388-389 (No date) 1880 Jivaro
116, 827, 751, 262

"The Jívaros of the Pintuc, and most others, have the habit of vomiting nearly every morning, by the aid of a feather--a practice similar to that of the Piojés of the Putumayo--arguing that all food remaining in the stomach overnight is unwholesome and undigested, and should therefore be ejected. It has been asserted that their remarkable health and prowess is partly attributable to this habit; certain it is that it obviates some of the bad effects of the not unfrequent 'gorging' in which Indians after long fasts are so prone to indulge. However, the Piojés, who treat themselves in the same manner, are certainly not more healthy--and less brave--than most other similarly placed [389] tribes. If it is a fact that the Jívaros are generally healthier and more robust than the rest of their race near the Equator--more astute and fearless they certainly are--it would seem reasonable to attribute this to the simple fact that their habits of work and rest are more regular, and they are much more provident than other tribes in keeping themselves supplied with food of good quality."

4: Up de Graff--198-199 (1897) 1923 Jivaro
115, 574, 262

"Arrived at the island, with a dozen Jívaros to build a house, start a fire, and unship our kit, we were treated to a most efficient exhibition of camp-pitching. In an hour a fine palm shelter was constructed with a thick thatched roof and a fire was roaring outside with our few stores landed and stacked. We had supper of roast yuca, roast corn on the cob, roast plantains, with peanuts and wild honey for dessert. [199]

The last named dish must have been the ambrosia of the gods; it is delicious beyond description; the peanuts are not cooked, but dried in the sun just enough to remove the raw taste and the honey is pure white and of a fragrance finer than the finest perfume.

That meal was a feast, for we had passed through lean days, as will be remembered."

4: Up de Graff--199 (1897) 1923 Jivaro
116, 262

"A word as to the bananas of that country is necessary. So superior are they in taste to the varieties which reach our markets that one who has never tasted the fruit fresh from the plant can have no conception of its quality. The largest, the plantain, is about 16 inches long, and correspondingly thick; it is always eaten cooked. The plantain has, of course, great nutritive value, and is, indeed, the staff of life in the American tropics. Not only does it form the sole support of millions of human beings for months at a time, but also of their cattle and domestic animals, even down to the chickens. The smaller varieties are exquisitely flavoured; when the skin is peeled off in the raw state they give off a strong, delicious scent as does a tangerine."

4: Up de Graff--215-216 (1897) 1923 Jivaro
116, 262

"It is a self-evident fact that the fish and meat on which the Antipas live so largely is nearly all poisoned, for we have noted already that the blow-gun is the only weapon of the chase, and that they kill their fish more often than [216] not with barbasco. Curiously enough, as is often the case with poisons, not only is the flesh of the fish, which has not been hypodermically infected, good to eat, but even that of the animal which has."

4: Up de Graff--228-229 (1897) 1923 Jivaro-1
116, 252, 262

"That afternoon we dropped some two dozen cotos, only three of which fell to my rifle. The condition of these three caused the Jivaros furiously to think, for they were shot to pieces, and were indeed an ugly mess. We packed them back to the bank, tied by their tails in bunches of four, and carried slung over the head. The game was dipped in the river to moisten their hair. A brushwood fire was built to singe them as they hung by their tails from a pole, which stretched the whole length of the blaze. As the muscles contracted with the heat, a gruesome spectacle presented itself, for their limbs moved, they clenched their hands, and their faces were distorted with an ugly grin which exposed their regular teeth. When singed all over, they were taken from the fire and scraped with machetes. There is only one word to describe the portions of meat which were hacked off--hunks. Regardless of joints or bones, they were chopped up by the savages, who had never known any better instrument than the stone-axe; the pieces were thrown into the boiling-pots, still half-covered with burnt hair which the hasty scraping had missed. For twenty minutes they cooked, emitting an unspeakable odour which was as welcome to the Antipas as that of breakfast bacon to the hungry white hunter.

I have omitted to mention what is always the tid-bit of such feasts. Before the singeing and cooking of the animals begin, they must of course be cleaned. (When meat is scarce, nothing is thrown away but the bones; even the guts are scraped and toasted.) The contents of the stomach are extracted and mixed like giamanchi, with water. Then without any further ado [229] they are drunk. At first the very idea is repulsive, but

4: Up de Graff--228-229 (1897) 1923 Jivaro-2
116, 252, 262

after all, the monkey lives on fresh wild fruits and his inside is a [sic] clean as ours. He has merely started the process of peptonisation and digestion for us, which saves us trouble. I was expecting, when first I tasted this delicacy, to find a trace of bitter gastric juices, but was pleasantly surprised; only the pure flavour of the fruit-pulp was there, and it made an excellent drink."

4: Up de Graff--229 (1897) 1923 Jivaro
116, 262

"The Jívaros, as I have said, throw nothing away but the bones, and even these they break with their teeth to get at the marrow. Although I have found many of their dishes excellent eating, I must say that soup cooked without salt, more especially when it is strongly flavoured with burnt hair, is not palatable. Indeed, in order to allay our hunger Game and I selected a young coto from the bag, skinned it and roasted it on the embers. Prepared in this way, they are just as good eating as any other game I have tasted except their cousin the maquisapa, whose equal, in my estimation, cannot be found on any table."

4: Up de Graff--232 (1897) 1923 Jivaro
116, 262

"One day, driven mad by the screaming of the macaws which had come to feed in the palms near camp, I suggested to the medicine man that we should go out and bag a few. The expedition was successful and we brought a few back. I noticed that the first thing the Jívaros did was to extract the contents of the crop, pure fruit-pulp, and eat it, giving it the first place among the delicacies which the bird had to offer. I cannot lay too much stress on the excellence of this dainty morsel. The palm-fruits on which they live are exceedingly hard, and contain a number of seeds or kernels embedded in the meat, making it more trouble than it is worth, despite the attractiveness of the meat itself, to eat the fruit. But all the spade-work is done by the parrot, whose sharp beak and dry tongue separate and reject the seeds, with no deleterious effect on the fruit itself. Once more we have an example of the possibility of taking advantage of the digestive efforts of a wild creature and finishing the feast."

4: Up de Graff--291 (1897) 1923 Jivaro
116, 136, 262

"Turtles were plentiful, and we found large quantities of eggs in all stages of incubation; those which contained fully formed live turtles proved even better eating than those not so far advanced."

5: Reyes and Teran--105 (No date) 1939 Jivaro
116, 262, 757

"The Jivaro Indians are very fond of the flesh of the pig, which they eat roasted and also boiled. They also extract the lard, but they use it only as a remedy for dysentery. (1)"

"1. 'Album-guía de la Region Oriental Ecuatoriana,' por Alfonso Rumazo González."

10: Anthony--153-158 (1920-21) 1921 Jivaro
116, 262

"The Jivaro will eat most of the animals of the forest, but there are one or two surprising exceptions. For some [158] unknown reason he will not touch the flesh of the deer although he has no scruples against killing it for a white man to eat.

A very peculiar custom we observed is the diet chosen by one who has recently killed an enemy. Such a man avoids meat, confining himself to a vegetable diet. The reason given us was that if he consumed meat, he would be easily surprised and killed by the friends of the man he had slain, whereas if he ate vegetables he would be hard to surprise."

12: Rivet--590-591 (no date) 1907 Jívaro
116, 262, 252

The diet of the Jíbaros consists of manioc, maize, bananas, and game, which they keep in certain leaves which preserve them from decay, and of fish which they are able to smoke. Only the wild hog is esteemed. The domestic hog is most often raised for commercial purposes; the majority of Indians do not [591] eat its flesh because they consider it a dirty animal.

18: Hermessen--445 (No date) 1917 Jivaro
116, 231, 262

"In this part of Oriente there were no cattle, horses, mules, or burros. The Jibaros kept pigs and fowls, but sustained themselves chiefly by the products of the chase."

20: Dyott--164
116, 825, 262, 177

(no date) 1926

Jivaro

"The deer is regarded by the Jivaros as the incarnation of a particularly evil demon, and therefore its meat is not eaten or even touched; but in the case of Kuashu and other families who come in contact with traders, the superstitious dread in which the animal has been held in the past has given way to more rational ideas. No time was lost, therefore, in slinging the carcass on to a pole and carrying it back to the house in triumph."

20: Dyott--168
116, 262, 843

(no date) 1926

Jivaro

"...When it came to eating the sinewy carcass of the monkey we had brought back with us from the hunt. Inza, Kuashu's youngest wife would not touch it. Most meats are usually taboo for women, but Inza was expecting a baby, and if she had eaten of the monkey, her offspring would have been hairy like the animal. The men devoured the meat greedily, believing that in so doing they would assimilate all the agility and nimbleness characteristic of this forest animal. One of the peculiarities of the poison which had been used to kill the monkey is that it is injurious only when it enters directly into the blood, for it can be eaten with impunity."

"While we were rummaging about the clearing, the women were busy cutting down a solitary bunch of bananas. They made a lot of work out of so simple a task, just as Kuashu did over chopping up a few logs. A banana tree produces but a single bunch of fruit. When that has been cut, no further bunches appear, and the stem can be cut away. It is soon replaced by several other shoots or suckers that have sprung up about its base. In this way, the plant spreads, and from a single shoot stuck in the ground at the outset a small forest of banana stems will eventually sprout. What with rotting tree-trunks lying on the ground and the constant lopping-off of banana stalks as the fruit reaches maturity, an Indian plantation does not present a very orderly appearance. To add to the confusion, many trees get blown over by the wind, especially if laden with a heavy bunch of fruit.

Bananas are never left on the tree to get ripe. They mature better if cut green and hung up in a house. The sight of ripe plantains is unusual. There are so many hungry mouths waiting to be fed that everything is consumed as soon as it is picked, and it never gets a chance even to turn yellow. My preference was always for the ripe fruit. In the green state, I found plantains stodgy and tasteless, although I believe if you eat them long enough, you will always end up by eating them green. Probably the slight sweetness of the mature fruit palls on one after a time, but I never reached that stage myself. The banana or plantain of the Indian must not be confused with the [184] sweet fruit varieties we are accustomed to see on sale in our own country. The latter, if

cooked, would be too sickly for words; but the plantain, even when ripe, is very tasteless, and the process of cooking seems to bring out the flavour much as it does that of a sweet potato."

24: Wright--238-240 (1938) 1942 Jivaro-1
116, 164, 177, 262

"Group No. 2 [KS: in comparative study of teeth] consisted of 80 males from pre-adolescent to middle adulthood, of which 34 were adults, and 46 pre-adolescent. This group lived in the mixed white and Indian settlement of Méndez, approximately three days journey from the region of Group No. 1. This latter group is of the same racial stock and family as those of Group No. 1, and originally lived in the same jungle environment, but are now under the protection of the missionaries and were living in and about the mission settlement. Their customs and food habits had been altered to meet the requirements of a quasi-civilized community. The usual diet of these individuals consisted of bananas as the only raw food, cooked meats, potatoes, rice and beans, bread, canned salmon, biscuits, coffee and carbonated beverages. Occasionally, cheap candy, cakes and sugar cane were available, the latter in ample quantities. Almost every individual suffered from [240] gastric disturbances. Because of local obstacles which could not be overcome, the making of plaster casts of their teeth and routine accurate dental examinations were virtually impossible, and cursory examinations for comparative study had to suffice. With the exception of three adult individuals, no one was free from dental caries. Approximately 25% had all their teeth affected with dental caries, and 35% from one to several teeth were missing. Of 34 adults, 16 had good occlusions, while 18 had fair occlusions, but with misplaced and rotated maxillary central incisors. Of the pre-adolescent

members of this group, 14 had good occlusions, and 32 were affected with malocclusions of varying degree; all of the latter had misplaced and rotated maxillary central incisors. Of a total of 80 individuals in Group 2, 50 or 82.5% were affected with maxillary central incisor misplacements. (Table 1.)"

TABLE 1--COMPARATIVE STUDY OF THE DENTAL OCCLUSION OF GROUPS 1 AND 2.

	Group 1. 67 Males		Group 2. 80 Males	
Class.	Adults 56	Pre-adolescent 11	Adults 34	Pre-adolescent 46
Good Occlusion	18	3	16	14
Rotated Max. 1st incisors. Bal. occl. fair-good.	47	5	18	32
Rotated Max. 1st incisors gen. mal-occlusion		3		

[Put above slip number 2, matching column rules.]

24: Wright--239
116, 164, 177, 262

(1938) 1942

Jivaro-2

4th mand. molars.	2				[Match columns with slip No. 1]
Rotated Max. 1st incisors.	Total 55 or 82%	of Group 1.		Total 50 or 82.5%	of Group 2.

TABLE 2--COMPARATIVE STUDY OF TOOTH CAVITIES OF GROUPS 1 AND 2 (1).

Class.	Adults 56	Pre-adolescent 11	Adults 34	Pre-adolescent 46
Free from caries	32	9	3	
1 cavity	15	1		
2 cavities	1			
3 "	4		31	46
4 "	1			
5 "	3	1		

(comparative records)
25% of all had cavities in almost all teeth.
35% had missing teeth.

"1. [See following sheet for footnote]"

24: Wright--239
116, 164, 177, 262

(1938) 1942

Jivaro-3

"1. [Footnote 1, p. 239] It was impossible to tabulate Group 2 in detail except to show results of a cursory examination for a comparative study."

24: Wright--240
116, 164, 177, 262

(1938) 1942

Jivaro

"In comparing the dental conditions of the two groups [KS: in comparative study of teeth] the factor of misplacements of the maxillary central incisors is a persistent variable which is constant for both groups. With 82% in Group 1, and 82.5% in Group 2, there is a variance of only .5% for affected teeth, a curious coincidence. There is another factor to be noted, namely that of the wide variance of dental caries between the two groups. The change in food habits is undoubtedly responsible for the increase in dental caries in Group 2, but this change in environment does not alter the inherited tendency to variation in occlusion common to both groups."

25: Vigna--41 [2] (no date) 1945 Jivaro
116, 262, 825

Superstitions referring to food deprive them of excellent hunting. For example, they will not grow horns; nor the flesh of deer, for they believe that in ancient times, the Yhuanchi incarnated in the deer; the flesh of tapir causes loss of strength, etc.

25: Vigna--42
116, 252, 262

(no date) 1945

Jivaro

The principal foods of the Jibaro are: yuca, banana, green ear of maize, sweet potato, and the flesh of hogs, monkeys, bears and birds. Frogs wrapped in leaves and roasted slowly in live coals are eaten with relish.

26: Brüning --64 (1902) 1928 Jívaro
116, 262, 224

The Indians obtain their main articles of food by hunting and fishing. With regard to food they do not seem to be very choosy. They hunt simply everything. Their main hunting weapon is the blowgun. But you can also see firearms, though of the worst kind and all of them single-barrelled. Gun powder, shot and matches with protection against humidity are highly desirable barter objects, and every traveller should bring them along.

26: Brüning--65 [2] (1902) 1928 Jívaro
116, 262, 136

The natives chiefly eat the following animals: two types of monkeys, a) the howling monkey (named cotomono by the whites and yakúm in Aguaruna) and b) the spider monkey (called maquisapa by the whites and wáši by the Aguaruna Indians); various types of turkeys, kúyo, onç [e], of which I have seen five; a hocko hen, paujiles, pívi, másu; a trumpeter bird, (tsiva), and many other birds whose names I do not know. In general, they do eat all birds, even the tiniest humming-birds. I have seen it how the Indians skinned a bird, speared it with a pointed stick and, without drawing it, roasted it over the fire and ate it. There is only one bird which they do not eat; they call it cáça. It has the shape of a pheasant, congregates in larger flights and emits a sound which lies halfway between croaking and screeching. The meat has a somewhat bitter taste, as I was able to find out for myself, but it is not so bad that somebody who is half-starved should reject it. [AN: The scientific name is Opisthocomus hoazin.] Of the larger mammals the following are not eaten: cattle, tapir (pamáu), ronsoco (ungumióg) and doe (hápa). [AN: It would be better to say: stag, species of the genus mazama.] The rubber collectors informed me that the Aguaruna Indians identify the doe with the devil. Ronsoco is a large rodent (Hydrochoerus capybara). Could it be that these animals are not eaten simply because they could not be killed with the blowgun--the only aboriginal weapon?

26: Brüning--66 (1902) 1928 Jívaro
116, 226, 262, 411

In addition to meat the Indians eat a great deal of fish. Fishing is done by a variety of methods. They obtain the largest catch when they stupefy fish. For this purpose they use two plants, each one separately. One is the herbaceous plant másu, the other the bark of a liana (tímu). Both are pulverized and thrown in quiet coves of the rivers and brooks. The narcotized fish soon come to the surface where they are speared with long pointed chonta sticks (šikít). These fishing spears have a circular cross-section and a diameter of about 2 cm. Their length is 3 - 3.5 m.

When the rivers are on the rise, the Indians are quick to make an estacada (a sort of grill) of bamboo and place it across the mouths of the brooks and inlets. When the waters are falling again, the fish remain behind these estacadas. The natives even use fish-hooks which are a desirable article of barter.

These are the main articles of food in the realm of fauna. According to the rubber collectors, the natives are said to eat a large beetle larva which occurs in decaying wood.

26: Brüning--66 [3] (1902) 1928 Jívaro
116, 262, 252, 137

There is a great variety of wild-growing edible plants, and it would be of great help to the traveller in the primeval forests of the upper Marañón if he would know these plants, for he is frequently forced by circumstances to make use of the prevailing flora. With what keen appetite have we not often devoured some inconspicuous fruit which the Indians designated as edible! Hunger is always one of the most formidable enemies for travellers in this region of the globe. During my short stay with the Aguaruna Indians I learned to know as edible the tender shoots of two palm trees. The names of these palms were tuntuám and uyáy. In order to reach this food one has to cut the entire tree (which brought anguish to my soul, but hunger is all powerful). These shoots are eaten raw or cooked in water. If you cook the shoots, you may drink the water as soup. The taste was similar to that of white cabbage.

26: Brüning--66-67 (1902) 1928 Jívaro
116, 262, 137

I have eaten the following wild-growing fruits (or I have watched others eating them): the nut [67] of the ivory-palm before it was fully matured. The Indians calle it tšapi, the whites tagua. The fruit of a passion-flower, called antšímuntše: It tastes well, similar to our goose-berry. Furthermore, the fruit na(h) ahăip which has the size of a small orange and the yellow color of an orange; its skin, however, has greater thickness and firmness. Its stone is so big that there is little space left for the sweet watery meat. We found this fruit at the eastern foot of the mountain, a little above Nazaret on the Marañón. Along the Marañón tributaries we found a fruit which is called pacáy in the Quichua language and huava along the north coast of Peru. Along the Marañón, however, these fruits can be found not on large trees but on low shrubs. Moreover, the pod was at the most 10 cm. long, while along the coast it had a length up to 50 cm. Otherwise the two fruits seemed to me the same. The Indians call this fruit which grows in their territory wámbokiš. It consists of a dark-green, leatherlike pod in which there are the black beanlike seeds bedded in a white, cottonlike, sweet mass. The white mass is the edible part. The aforementioned are according to my information, the articles of food provided by the primeval forest. But there are certainly more.

Dogs are used for hunting. They keep chickens to eat their meat and eggs. Pork (pigs: kutsi) is eaten by both sexes. In the atsuim region, along the upper Cenipa, a very secluded part of the Aguarunas is said to have very large pigs.

28: Tessman--190 [6] (No date) 1930 Jivaro
116, 222, 262

Palm-cabbage is eaten, and so are the fruits of Oenocarpus bataua (ungúki), of Mauritia flexuosa (átsō), and of Euterpe (sakō). The larvae of palmer-worms (mūndís) and a certain ant (uéa) are eaten. The Indians eat honey, too.

28: Tessman--353 [6] (No date) 1930 Jivaro
116, 262, 825

The one-year old buck is killed because it damages the manihot fields; but its meat is eaten only by a few old men. This is the reason for its unpopularity: since it has only two horns, this is taken as an indication that a sorcerer (tsintĕ) is hidden inside. Only rarely do they eat tapir, since they assume that it is related to the one-year old buck.

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and plantains around it. She supports the basket with a tumpline over the forehead, carries an empty cooking pot in her right hand, a firebrand in her left hand, and the axe under her arm. Leaving the children in the house, she sets forth down the trail with her husband, who carries only his gun and his machete.

When they arrive at the spot where trees are to be felled, she fetches wood, makes a fire, and cooks manioc. Her husband starts felling trees. After about two hours he calls for beer. He drinks two or three gourd bowls full and continues working. In about another hour he calls for beer again and drinks a similar amount. He tells his wife to cook meat and continues working. Around noon he goes to where she has been cooking, and asks for beer, drinking three gourd bowls full. She serves boiled meat, putting it, with boiled manioc and roasted plantains, on fresh banana leaves. When they finish eating, he drinks beer again, and returns to his work. He fells trees for about an hour, comes back and drinks more beer.

Then they return home. When they arrive, he sits down on his mead and asks for beer. At about 2 P.M., his daughter and son-in-law, who live a few hundred yards away, drop by and join in drinking beer. They all begin to social-dance and, since there is ample beer brewed, they continue drinking and dancing all afternoon and late into the night. They drink beer continually and do not bother to prepare or eat any food. The children drink beer, too, and munch on cold boiled manioc. By about 3 A.M., everyone has fallen asleep, the daughter and son-in-law staying overnight in the house. They all sleep until early the next afternoon, when they eat.

Hunting is the chief source of protein, and is more important to the food supply than fishing or gathering, contributing an estimated 20 per cent of the diet. A great diversity of botanical and zoological species exists in this region,[2] but this variety is typically accompanied by low density of population for any particular species. This low density sometimes

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of insects and fruits, flowers and leaves constitute the main kinds of gathered foods. 222

Insects particularly are relished as food items, both in larval and mature forms. The rotten stems of fallen chonta palms are cut open to collect cocoons of two kinds of edible grubs (*washimi*, *tsewalam*), and the ivory nut palm often yields larvae of a large moth (*wampui*). Cocoons containing grubs of the butterfly *tampuisiit* are removed from hanging vines. Leaf-eating ants (*ayumi*) and a kind of grasshopper (*tsampuma*) also are collected. [261]

The various species of palms are the most important source of wild plant food. The chonta (*Guilielma utilis*), royal, and other palms (*kenak*, *kuakui*, *ampakui*, *tsirintá*) are chopped down with machetes to obtain their edible tips. Except for the *ampakui*, these palms (together with the ivory nut palm and *kenak*) also supply an annual harvest of large clusters of edible fruits, which are both eaten boiled and made into beer. Frequently young tender leaves are collected from other plants (*wesui*, *nuñi'*, *tpii*, *wamar*), but no wild roots are dug up for food. Generally, the only tool used in all these gathering activities is the machete. [262] [252] [293] [262]

Virtually all families raise chickens, some also raise ducks, and a very few keep pigs. A household's pigs are allowed to wander relatively freely in the adjacent forest to feed. If they start rooting in the garden, a low rail fence may be built around it to keep them out. Neighbours' pigs never seem to threaten the garden, because of the long distances between houses and the small numbers of pigs kept. 231 [235] [417]

Chickens, ducks, and their eggs are utilized for food, especially to feed visitors when no game is on hand. In the uncommon cases where pigs are kept, the family usually is planning a *tsuntsa* feast and intends to slaughter the pigs to 262 574 765 [235] [231]

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feed the large number of anticipated guests, who could not be supplied with enough meat from hunting alone. Normally, however, the contribution of the animal domesticates, essentially fowl, is less than 5 per cent of the diet.

At least one or two dogs are kept in most households. These not only aid in hunting in the forest, as mentioned earlier, but also protect the garden crops, including the manioc tubers, from devastation by agouti and other rodents. A family without a good hunting dog lives in fear of losing much of its garden produce within a few months. An equally important service that they provide is to act as watchdogs against surprise attacks. Leashed to beds in the women's end of the house (see Plate 11), their slightest barking usually results in the household head seizing his gun and preparing to defend himself and his family. Since the dogs' barking indicates that the intended victim has been alerted, the attacking party generally withdraws. Interestingly, the name for dog, *mirua*, is the same term used to designate the feared and respected jaguar.

The importance of dogs in hunting, protecting the garden, and defense helps to explain the high degree of care they receive. When puppies are born, one of the owner's wives observes a kind of couvade, in which she lies abed with the bitch to protect the litter from supernatural harm. A puppy is nursed by the wife as well as by its canine mother. Even in adult life, the dog normally sleeps on the bed beside its owners, and is fed premasticated manioc in a special wooden dish. Dogs, like people, are even given the hallucinogenic *Datura* to help them obtain supernatural power.

The majority of households contain at least one pet besides the dog. Such pets, which include monkeys, marmosets, parakeets, parrots, macaws, and doves, are captured and

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186 small households over a large area results in a very poor
203 communication system in which fourth- or fifth-hand information usually arrives garbled and exaggerated through repetition, the erroneous rumors giving rise to misunderstanding, suspicion, and hostility.

869 Children frequently steal portions of cooked meat from one
• 262 another and wrestle over them, which reflects the fact that
855 meat is not always abundant in the household, depending on the father's hunting success and his immediate commitment to some other task, such as clearing trees. There is also a reluctance to give a small child more than a single piece of meat, for it is believed that varying the portion may cause it to cry when it doesn't get as much as it did on a previous occasion.

865 While stealing and wrestling over meat is disapproved of
[867] and, if repeated, may be punished by the father by spanking with a nettle, wrestling for its own sake between boys is approved and encouraged, although the father may advise them not to hurt one another. Sometimes nettle spanking may
861 be used to stop children from playing, or the father may find it sufficient simply to threaten to bring a nettle. A child who regularly grabs things that he might damage, such as pottery bowls, may have his hand beaten with a nettle. In general, however, there is little in the Jivaro house that a child can damage, since pottery not in use is stored on high bamboo shelves, and personal effects are suspended in baskets out of
[867] their reach. As a result, discipline with regard to safeguarding property is not emphasized.

[867] If a child is extraordinarily bad, and, despite nettle spanking, continues breaking pottery vessels, taking meat without asking permission, and stealing peanuts from storage baskets above the rafters, the parents may undertake the harshest punishment they ever use on children. This consists of drop-

34:Harner E-4. 5 (1956-1969)1973 SD9 Jivaro SD9

refuse. If there is no infant, this will probably be her only duty.

A girl approximately six years or older may have not only the above tasks, but also directly assists her mother in garden work of all kinds, including planting, weeding, and harvesting. When her mother is making pottery, she imitates her by making and firing miniature vessels and also may form and fire miniature dogs. No dolls in human form are produced, however. A boy who may be tempted to work with clay is discouraged by his father, who advises him not to touch it or else the boy's penis will one day stay soft and limp like a coil of clay.

A boy, when about four, begins to learn the art of blowgun hunting. His father gives him a small hollow reed less than a foot long and makes little darts. The child, who at that age tags along after his mother to the garden, uses it to shoot at butterflies. When he is about six, his father presents him with a real miniature blowgun and a dart quiver. Then, while his mother works in the garden, he wanders about, shooting at the hummingbirds coming to feed at the flowers of the manioc plants. Those that he kills, he brings to her to cook, which she does gravely. He is not allowed to eat them himself, it being believed that he cannot kill again if he does so. By approximately nine years of age, his skill normally has advanced to the stage that he is killing larger birds lurking in the trees around the garden. His father then takes him hunting and gives him his first formal instruction in killing game, and has him assist by carrying it home. In the house, the father encourages the development of other male skills by showing approval when the son attempts to make miniature baskets or model houses and rafts.

Post-puberty boys perform most of the tasks of their

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engage in subsistence activities and eat what appears to be food to them, it never satisfies them, because it is really just air. The "animals" which these souls hunt in the forest are only the souls of the birds, fish, and mammals which they killed in their former lives. Such an existence of perpetual hunger is the fate of the true souls of all persons, without regard to the kind of life they led while in living individuals. Needless to say, the true soul's fate of persistent starvation is dreaded by the Jívaro.

One can often see deer and owls lingering in the vicinity of abandoned garden and house sites.[12] The Jívaro interpret the presence of such creatures at these old living places as evidence that the animals are temporarily visible embodiments of true souls. The true souls, when they are in these visible forms, are referred to as "human demons" (*suar iwanch*). There is a moderate fear of them, particularly by women, and the Jívaro taboo on the eating of deer meat is based on the fear that eating such an animal might result in a deceased person's soul entering the body of the living person, with the result that he may subsequently die. These "human demon" animals are often seen in pairs, a fact the Jívaro interpret as indicating that the two creatures are temporarily visible forms of the souls of a man and his wife.

When a true soul has thus repeated the entire life history of its deceased owner, it ceases its existence as a "human demon" and changes into a "true demon." As a true demon, its form is permanently visible and more or less human, although a good deal uglier. The true demon roams the forest hungry, solitary, and lonely, feeling greatly the loss of the company of its former family. When a Jívaro child wanders into the forest and is not found immediately, it is said that a true demon carried off the child because it was

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and two black streaks are painted under his eyes. The body is wrapped in a woman's dress, the largest cloth available. A palm-wood fighting lance is laid parallel to his body on the surface of the ground, and on the ground adjacent to the burial is placed the man's round stool. From a house beam overhead is suspended his monkey skin traveling bag containing his combs, ornamental earsticks, and knife or machete blade fragment.

If the deceased male still had a *tsantsa* in his possession, it is interred with him, under his back. Conversely, if he himself was the victim of a head-taking raid, his corpse is buried in the usual way.

A woman is buried in her finest dress and wearing her small shell dance belt, glass bead necklaces, toucan feather earrings, and an ornamental stick in her lower lip. Her pottery-making tools and beer strainer are placed on the ground near her head, and one of her carrying baskets, containing personal effects, such as her comb and perfume bundle, is hung from a house beam above.

A large basket of cooked manioc and meat is left hanging above the head of the deceased, whether male or female, and a bowl of manioc beer is placed on the ground. The food and beer are replaced daily for about a week, after which it is believed that the *nekás wakanī*, the true soul, has normally departed. However, if one of the survivors subsequently has a bad dream in which the deceased appears and complains of not being fed, the food and beer containers are hastily replenished.

Occasionally, an elderly, outstanding *untā* with renown as a killer may, on his deathbed, advise one or more sons that he wants them each to acquire one of his own *arutam* souls, which form at his death. When he dies, his corpse is entombed in a special way. It is seated on his round stool, leaning

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digging of foxholes in house floors is a related new development. The construction of double walls behind beds has become common to protect sleepers from assassins attempting to shoot between the palm staves of the house wall at night. The construction of escape tunnels has declined considerably since the lessening of inter-tribal warfare, for their prime function was to provide a means of escaping the wholesale attacks and sieges which only occur in the inter-tribal head-taking raids. Log signal drums are now also relatively rare, due to the adoption of firearms, whose discharge is sufficient in itself to alert neighbors when an attack occurs.

A decline has occurred in the last three or four decades in the numbers of pigs kept, which is ascribed primarily to the fact that *tsantsa* feasts now have become much less frequent due to the lessening of inter-tribal warfare. The raising of pigs was primarily directed towards having a large supply of meat for such feasts. The capturing and taming of wild animals and birds has increased, however, because of the demand for these by Jivaro trading partners to the west, who trade them to the whites of the frontier.

Hunting has become more important as an activity to procure skins and feathers for trade, although there is no indication that such specialized hunting has resulted in an increase of meat consumption in the household. The adoption of firearms has tended to increase the hunters' efficiency in killing rare birds, such as the toucan, which are prized for their plumage and are difficult to stalk at close range. Firearms also have facilitated the hunting of dangerous wild animals for their skins, especially the jaguar and peccary, which were formerly hunted with the lance.

Besides firearms, blowguns and curare dart poison are also utilized for hunting to a greater degree than was the case several decades ago. The intensified use of blowguns has